

tgg gaa att ttc cta gaa cat gtc gaa caa ctt ata aat caa caa ata Trp Glu Ile Phe Leu Glu His Val Glu Gln Leu Ile Asn Gln Gln Ile 100 105 110	336
aca gaa aat gct agg aat acg gca ctt gct cga tta caa ggt tta gga Thr Glu Asn Ala Arg Asn Thr Ala Leu Ala Arg Leu Gln Gly Leu Gly 115 120 125	384
gat tcc ttt aga gcc tat caa cag tca ctt gaa gat tgg cta gaa aac Asp Ser Phe Arg Ala Tyr Gln Gln Ser Leu Glu Asp Trp Leu Glu Asn 130 135 140	432
cgt gat gat gca aga acg aga agt gtt ctt tat acc caa tat ata gcc Arg Asp Asp Ala Arg Thr Arg Ser Val Leu Tyr Thr Gln Tyr Ile Ala 145 150 155 160	480
tta gaa ctt gat ttt ctt aat gcg atg ccg ctt ttc gca att aga aac Leu Glu Leu Asp Phe Leu Asn Ala Met Pro Leu Phe Ala Ile Arg Asn 165 170 175	528
caa gaa gtt cca tta tta atg gta tat gct caa gct gca aat tta cac Gln Glu Val Pro Leu Leu Met Val Tyr Ala Gln Ala Ala Asn Leu His 180 185 190	576
cta tta tta ttg aga gat gcc tct ctt ttt ggt agt gaa ttt ggg ctt Leu Leu Leu Arg Asp Ala Ser Leu Phe Gly Ser Glu Phe Gly Leu 195 200 205	624
aca tcg cag gaa att caa cgt tat tat gag cgc caa gtg gaa caa acg Thr Ser Gln Glu Ile Gln Arg Tyr Tyr Glu Arg Gln Val Glu Gln Thr 210 215 220	672
aga gat tat tcc gac tat tgc gta gaa tgg tat aat aca ggt cta aat Arg Asp Tyr Ser Asp Tyr Cys Val Glu Trp Tyr Asn Thr Gly Leu Asn 225 230 235 240	720
agc ttg aga ggg aca aat gcc gca agt tgg gtg cgt tat aat caa ttc Ser Leu Arg Gly Thr Asn Ala Ala Ser Trp Val Arg Tyr Asn Gln Phe 245 250 255	768
cgt aga gat cta acg tta ggg gta tta gat cta gtg gca cta ttc cca Arg Arg Asp Leu Thr Leu Gly Val Leu Asp Leu Val Ala Leu Phe Pro 260 265 270	816
agc tat gac act cgc act tat cca ata aat acg agt gct cag tta aca Ser Tyr Asp Thr Arg Thr Tyr Pro Ile Asn Thr Ser Ala Gln Leu Thr 275 280 285	864
agg gaa gtt tat aca gac gca att gga gca aca ggg gta aat atg gca Arg Glu Val Tyr Thr Asp Ala Ile Gly Ala Thr Gly Val Asn Met Ala 290 295 300	912
agt atg aat tgg tat aat aat aat gca cct tcg ttt tcc gct ata gag Ser Met Asn Trp Tyr Asn Asn Asn Ala Pro Ser Phe Ser Ala Ile Glu 305 310 315 320	960

act gcg gtt atc cga agc ccg cat cta ctt gat ttt cta gaa caa ctt	1008
Thr Ala Val Ile Arg Ser Pro His Leu Leu Asp Phe Leu Glu Gln Leu	
325 330 335	
aca att ttt agc act tca tca cga tgg agt gct act agg cat atg act	1056
Thr Ile Phe Ser Thr Ser Ser Arg Trp Ser Ala Thr Arg His Met Thr	
340 345 350	
tac tgg cgg ggg cac aca att caa tct cgg cca ata gga ggc gga tta	1104
Tyr Trp Arg Gly His Thr Ile Gln Ser Arg Pro Ile Gly Gly Leu	
355 360 365	
aat acc tca acg cat ggg tct acc aat act tct att aat cct gta aga	1152
Asn Thr Ser Thr His Gly Ser Thr Asn Thr Ser Ile Asn Pro Val Arg	
370 375 380	
tta tca ttc ttc tct cga gac gta tat tgg act gaa tca tat gca gga	1200
Leu Ser Phe Phe Ser Arg Asp Val Tyr Trp Thr Glu Ser Tyr Ala Gly	
385 390 395 400	
gtg ctt cta tgg gga att tac ctt gaa cct att cat ggt gtc cct act	1248
Val Leu Leu Trp Gly Ile Tyr Leu Glu Pro Ile His Gly Val Pro Thr	
405 410 415	
gtt aga ttt aat ttt agg aac cct cag aat act ttt gaa aga ggt act	1296
Val Arg Phe Asn Phe Arg Asn Pro Gln Asn Thr Phe Glu Arg Gly Thr	
420 425 430	
gct aac tat agt caa ccc tat gag tca cct ggg ctt caa tta aaa gat	1344
Ala Asn Tyr Ser Gln Pro Tyr Glu Ser Pro Gly Leu Gln Leu Lys Asp	
435 440 445	
tca gaa act gaa tta cca cca gaa aca aca gaa cga cca aat tat gaa	1392
Ser Glu Thr Glu Leu Pro Pro Glu Thr Thr Glu Arg Pro Asn Tyr Glu	
450 455 460	
tca tat agt cat agg tta tct cac ata ggg ctc att tca caa tct agg	1440
Ser Tyr Ser His Arg Leu Ser His Ile Gly Leu Ile Ser Gln Ser Arg	
465 470 475 480	
gtg cat gta cca gta tat tct tgg acg cac cgt agt gca gat cgt aca	1488
Val His Val Pro Val Tyr Ser Trp Thr His Arg Ser Ala Asp Arg Thr	
485 490 495	
aat acc att agt tca gat agc ata aca caa ata cca ttg gta aaa tca	1536
Asn Thr Ile Ser Ser Asp Ser Ile Thr Gln Ile Pro Leu Val Lys Ser	
500 505 510	
ttc aac ctt aat tca ggt acc tct gta gtc agt ggc cca gga ttt aca	1584
Phe Asn Leu Asn Ser Gly Thr Ser Val Val Ser Gly Pro Gly Phe Thr	
515 520 525	
gga ggg gat ata atc cga act aac gtt aat ggt agt gta cta agt atg	1632
Gly Gly Asp Ile Ile Arg Thr Asn Val Asn Gly Ser Val Leu Ser Met	
530 535 540	

ggt ctt aat ttt aat aat aca tca tta cag cgg tat cgc gtg aga gtt	1680
Gly Leu Asn Phe Asn Asn Thr Ser Leu Gln Arg Tyr Arg Val Arg Val	
545 550 555 560	
cgt tat gct tct caa aca atg gtc ctg agg gta act gtc gga ggg	1728
Arg Tyr Ala Ala Ser Gln Thr Met Val Leu Arg Val Thr Val Gly Gly	
565 570 575	
agt act act ttt gat caa gga ttc cct agt act atg agt gca aat gag	1776
Ser Thr Thr Phe Asp Gln Gly Phe Pro Ser Thr Met Ser Ala Asn Glu	
580 585 590	
tct ttg aca tct caa tca ttt aga ttt gca gaa ttt cct gta ggt att	1824
Ser Leu Thr Ser Gln Ser Phe Arg Phe Ala Glu Phe Pro Val Gly Ile	
595 600 605	
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Ser Ala Ser Gly Ser Gln Thr Ala Gly Ile Ser Ile Ser Asn Asn Ala	
610 615 620	
ggt aga caa acg ttt cac ttt gat aaa att gaa ttc att cca att act	1920
Gly Arg Gln Thr Phe His Phe Asp Lys Ile Glu Phe Ile Pro Ile Thr	
625 630 635 640	
gca acc ttc gaa gca gaa tac gat tta gaa agg gcg caa gag gcg gtg	1968
Ala Thr Phe Glu Ala Glu Tyr Asp Leu Glu Arg Ala Gln Glu Ala Val	
645 650 655	
aat gct ctg ttt act aat acg aat cca aga aga ttg aaa aca gat gtg	2016
Asn Ala Leu Phe Thr Asn Thr Asn Pro Arg Arg Leu Lys Thr Asp Val	
660 665 670	
aca gat tat cat att gat caa gta tcc aat tta gtg gcg tgt tta tcg	2064
Thr Asp Tyr His Ile Asp Gln Val Ser Asn Leu Val Ala Cys Leu Ser	
675 680 685	
gat gaa ttc tgc tta gat gaa aag aga gaa tta ctt gag aaa gtg aaa	2112
Asp Glu Phe Cys Leu Asp Glu Lys Arg Glu Leu Leu Glu Lys Val Lys	
690 695 700	
tat gcg aaa cga ctc agt gat gaa aga aac tta ctc caa gat cca aac	2160
Tyr Ala Lys Arg Leu Ser Asp Glu Arg Asn Leu Leu Gln Asp Pro Asn	
705 710 715 720	
ttc aca tcc atc aat aag caa cca gac ttc ata tct act aat gag caa	2208
Phe Thr Ser Ile Asn Lys Gln Pro Asp Phe Ile Ser Thr Asn Glu Gln	
725 730 735	
tcg aat ttc aca tct atc cat gaa caa tct gaa cat gga tgg tgg gga	2256
Ser Asn Phe Thr Ser Ile His Glu Gln Ser Glu His Gly Trp Trp Gly	
740 745 750	
agt gag aac att aca atc cag gaa gga aat gac gta ttt aaa gag aat	2304
Ser Glu Asn Ile Thr Ile Gln Glu Gly Asn Asp Val Phe Lys Glu Asn	
755 760 765	

tac gtc aca cta ccg ggg act ttt aat gag tgt tat ccg acg tat tta Tyr Val Thr Leu Pro Gly Thr Phe Asn Glu Cys Tyr Pro Thr Tyr Leu 770 775 780	2352
tat caa aaa ata gga gag tcg gaa tta aaa gct tat act cgc tac caa Tyr Gln Lys Ile Gly Glu Ser Glu Leu Lys Ala Tyr Thr Arg Tyr Gln 785 790 795 800	2400
tta aga ggg tat att gaa gat agt caa gat tta gag ata tat ttg att Leu Arg Gly Tyr Ile Glu Asp Ser Gln Asp Leu Glu Ile Tyr Leu Ile 805 810 815	2448
cgt tat aat gcg aaa cat gaa aca ttg gat gtt cca ggt acc gag tcc Arg Tyr Asn Ala Lys His Glu Thr Leu Asp Val Pro Gly Thr Glu Ser 820 825 830	2496
gta tgg ccg ctt tca gtt gaa agc cca atc gga agg tgc gga gaa ccg Val Trp Pro Leu Ser Val Glu Ser Pro Ile Gly Arg Cys Gly Glu Pro 835 840 845	2544
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tgc aga gat gga gaa aaa tgt gcg cat cat tcc cat cat ttc tct ttg Cys Arg Asp Gly Glu Lys Cys Ala His His Ser His His Phe Ser Leu 865 870 875 880	2640
gat att gat att gga tgc aca gac ttg cat gag aat cta ggc gtg tgg Asp Ile Asp Ile Gly Cys Thr Asp Leu His Glu Asn Leu Gly Val Trp 885 890 895	2688
gtg gta ttc aag att aag acg cag gaa ggt cat gca aga cta ggg aat Val Val Phe Lys Ile Lys Thr Gln Glu Gly His Ala Arg Leu Gly Asn 900 905 910	2736
ctg gaa ttt att gaa gag aaa cca tta tta gga gaa gca ctg tct cgt Leu Glu Phe Ile Glu Glu Lys Pro Leu Leu Gly Glu Ala Leu Ser Arg 915 920 925	2784
gtg aag aga gca gag aaa aaa tgg aga gac aaa cgt gaa aaa cta caa Val Lys Arg Ala Glu Lys Lys Trp Arg Asp Lys Arg Glu Lys Leu Gln 930 935 940	2832
ttg gaa aca aaa cga gta tat aca gag gca aaa gaa gct gtg gat gct Leu Glu Thr Lys Arg Val Tyr Thr Glu Ala Lys Glu Ala Val Asp Ala 945 950 955 960	2880
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ggc atg att cat gcg gca gat aaa ctt gtt cat cga att cga gag gct Gly Met Ile His Ala Ala Asp Lys Leu Val His Arg Ile Arg Glu Ala 980 985 990	2976
tat ctg tca gaa tta tct gtt atc ccg ggt gta aat gcg gaa att ttt	3024

Tyr Leu Ser Glu Leu Ser Val Ile Pro Gly Val Asn Ala Glu Ile Phe			
995	1000	1005	
gaa gaa tta gaa ggt cgc att atc act gca atc tcc cta tac gat gcg			3072
Glu Glu Leu Glu Gly Arg Ile Ile Thr Ala Ile Ser Leu Tyr Asp Ala			
1010	1015	1020	
aga aat gtc gtt aaa aat ggt gat ttt aat aat gga tta gca tgc tgg			3120
Arg Asn Val Val Lys Asn Gly Asp Phe Asn Asn Gly Leu Ala Cys Trp			
1025	1030	1035	1040
aat gta aaa ggg cat gta gat gta caa cag agc cat cac cgt tct gtc			3168
Asn Val Lys Gly His Val Asp Val Gln Gln Ser His His Arg Ser Val			
1045	1050	1055	
ctt gtt atc cca gaa tgg gaa gca gaa gtg tca caa gca gtt cgc gtc			3216
Leu Val Ile Pro Glu Trp Glu Ala Glu Val Ser Gln Ala Val Arg Val			
1060	1065	1070	
tgt ccg ggg cgt ggc tat atc ctc cgt gtc aca gcg tac aaa gag gga			3264
Cys Pro Gly Arg Gly Tyr Ile Leu Arg Val Thr Ala Tyr Lys Glu Gly			
1075	1080	1085	
tat gga gag ggt tgt gta acg atc cat gaa atc gag aac aat aca gac			3312
Tyr Gly Glu Gly Cys Val Thr Ile His Glu Ile Glu Asn Asn Thr Asp			
1090	1095	1100	
gaa cta aaa ttt aaa aac tgt gaa gaa gag gaa gtg tat cca acg gat			3360
Glu Leu Lys Phe Lys Asn Cys Glu Glu Glu Val Tyr Pro Thr Asp			
1105	1110	1115	1120
aca gga acg tgt aat gat tat act gca cac caa ggt aca gca gta tgt			3408
Thr Gly Thr Cys Asn Asp Tyr Thr Ala His Gln Gly Thr Ala Val Cys			
1125	1130	1135	
aat tcc cgt aat gct gga tat gag gat gca tat gaa gtt gat act aca			3456
Asn Ser Arg Asn Ala Gly Tyr Glu Asp Ala Tyr Glu Val Asp Thr Thr			
1140	1145	1150	
gca tct gtt aat tac aaa ccg act tat gaa gaa gaa acg tat aca gat			3504
Ala Ser Val Asn Tyr Lys Pro Thr Tyr Glu Glu Thr Tyr Thr Asp			
1155	1160	1165	
gta cga aga gat aat cat tgt gaa tat gac aga ggg tat gtg aat tat			3552
Val Arg Arg Asp Asn His Cys Glu Tyr Asp Arg Gly Tyr Val Asn Tyr			
1170	1175	1180	
cca cca cta cca gct ggt tat atg aca aaa gaa tta gaa tac ttc cca			3600
Pro Pro Leu Pro Ala Gly Tyr Met Thr Lys Glu Leu Glu Tyr Phe Pro			
1185	1190	1195	1200
gaa acc gat aag gta tgg att gag att gga gaa acg gaa ggg aag ttt			3648
Glu Thr Asp Lys Val Trp Ile Glu Ile Gly Glu Thr Glu Gly Lys Phe			
1205	1210	1215	
att gta gac agc gtg gaa tta ctc ctt atg gag gaa tag			3687
Ile Val Asp Ser Val Glu Leu Leu Met Glu Glu			

1220

1225

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<212> PRT

<213> *Bacillus thuringiensis*

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Ile	Pro	Ala	Val	Ser	Asn	His	Ser	Thr	Gln	Met	Asp	Leu	Ser	Pro	Asp
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								25							

Ala	Arg	Ile	Glu	Asp	Ser	Leu	Cys	Ile	Ala	Glu	Gly	Asn	Asn	Ile	Asn
															45
							40								

Pro	Leu	Val	Ser	Ala	Ser	Thr	Val	Gln	Thr	Gly	Ile	Asn	Ile	Ala	Gly
															60
							55								

Arg	Ile	Leu	Gly	Val	Leu	Gly	Val	Pro	Phe	Ala	Gly	Gln	Ile	Ala	Ser
															80
							70				75				

Phe	Tyr	Ser	Phe	Leu	Val	Gly	Glu	Leu	Trp	Pro	Arg	Gly	Arg	Asp	Gln
															95
							85			90					

Trp	Glu	Ile	Phe	Leu	Glu	His	Val	Glu	Gln	Leu	Ile	Asn	Gln	Gln	Ile
															110
							100			105					

Thr	Glu	Asn	Ala	Arg	Asn	Thr	Ala	Leu	Ala	Arg	Leu	Gln	Gly	Leu	Gly
															125
							115			120					

Asp	Ser	Phe	Arg	Ala	Tyr	Gln	Gln	Ser	Leu	Glu	Asp	Trp	Leu	Glu	Asn
															140
							130			135					

Arg	Asp	Asp	Ala	Arg	Thr	Arg	Ser	Val	Leu	Tyr	Thr	Gln	Tyr	Ile	Ala
															160
							145			150		155			

Leu	Glu	Leu	Asp	Phe	Leu	Asn	Ala	Met	Pro	Leu	Phe	Ala	Ile	Arg	Asn
															175
							165			170					

Gln	Glu	Val	Pro	Leu	Leu	Met	Val	Tyr	Ala	Gln	Ala	Ala	Asn	Leu	His
															190
							180			185					

Leu	Leu	Leu	Arg	Asp	Ala	Ser	Leu	Phe	Gly	Ser	Glu	Phe	Gly	Leu	
															205
							195			200					

Thr	Ser	Gln	Glu	Ile	Gln	Arg	Tyr	Tyr	Glu	Arg	Gln	Val	Glu	Gln	Thr
															220
							210			215					

Arg	Asp	Tyr	Ser	Asp	Tyr	Cys	Val	Glu	Trp	Tyr	Asn	Thr	Gly	Leu	Asn
															240
							225			230		235			

Ser	Leu	Arg	Gly	Thr	Asn	Ala	Ala	Ser	Trp	Val	Arg	Tyr	Asn	Gln	Phe
															255
							245			250					

Arg Arg Asp Leu Thr Leu Gly Val Leu Asp Leu Val Ala Leu Phe Pro
 260 265 270
 Ser Tyr Asp Thr Arg Thr Tyr Pro Ile Asn Thr Ser Ala Gln Leu Thr
 275 280 285
 Arg Glu Val Tyr Thr Asp Ala Ile Gly Ala Thr Gly Val Asn Met Ala
 290 295 300
 Ser Met Asn Trp Tyr Asn Asn Ala Pro Ser Phe Ser Ala Ile Glu
 305 310 315 320
 Thr Ala Val Ile Arg Ser Pro His Leu Leu Asp Phe Leu Glu Gln Leu
 325 330 335
 Thr Ile Phe Ser Thr Ser Arg Trp Ser Ala Thr Arg His Met Thr
 340 345 350
 Tyr Trp Arg Gly His Thr Ile Gln Ser Arg Pro Ile Gly Gly Leu
 355 360 365
 Asn Thr Ser Thr His Gly Ser Thr Asn Thr Ser Ile Asn Pro Val Arg
 370 375 380
 Leu Ser Phe Phe Ser Arg Asp Val Tyr Trp Thr Glu Ser Tyr Ala Gly
 385 390 395 400
 Val Leu Leu Trp Gly Ile Tyr Leu Glu Pro Ile His Gly Val Pro Thr
 405 410 415
 Val Arg Phe Asn Phe Arg Asn Pro Gln Asn Thr Phe Glu Arg Gly Thr
 420 425 430
 Ala Asn Tyr Ser Gln Pro Tyr Glu Ser Pro Gly Leu Gln Leu Lys Asp
 435 440 445
 Ser Glu Thr Glu Leu Pro Pro Glu Thr Thr Glu Arg Pro Asn Tyr Glu
 450 455 460
 Ser Tyr Ser His Arg Leu Ser His Ile Gly Leu Ile Ser Gln Ser Arg
 465 470 475 480
 Val His Val Pro Val Tyr Ser Trp Thr His Arg Ser Ala Asp Arg Thr
 485 490 495
 Asn Thr Ile Ser Ser Asp Ser Ile Thr Gln Ile Pro Leu Val Lys Ser
 500 505 510
 Phe Asn Leu Asn Ser Gly Thr Ser Val Val Ser Gly Pro Gly Phe Thr
 515 520 525
 Gly Gly Asp Ile Ile Arg Thr Asn Val Asn Gly Ser Val Leu Ser Met
 530 535 540
 Gly Leu Asn Phe Asn Asn Thr Ser Leu Gln Arg Tyr Arg Val Arg Val
 545 550 555 560

Arg Tyr Ala Ala Ser Gln Thr Met Val Leu Arg Val Thr Val Gly Gly
 565 570 575
 Ser Thr Thr Phe Asp Gln Gly Phe Pro Ser Thr Met Ser Ala Asn Glu
 580 585 590
 Ser Leu Thr Ser Gln Ser Phe Arg Phe Ala Glu Phe Pro Val Gly Ile
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 Ser Ala Ser Gly Ser Gln Thr Ala Gly Ile Ser Ile Ser Asn Asn Ala
 610 615 620
 Gly Arg Gln Thr Phe His Phe Asp Lys Ile Glu Phe Ile Pro Ile Thr
 625 630 635 640
 Ala Thr Phe Glu Ala Glu Tyr Asp Leu Glu Arg Ala Gln Glu Ala Val
 645 650 655
 Asn Ala Leu Phe Thr Asn Thr Asn Pro Arg Arg Leu Lys Thr Asp Val
 660 665 670
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 675 680 685
 Asp Glu Phe Cys Leu Asp Glu Lys Arg Glu Leu Leu Glu Lys Val Lys
 690 695 700
 Tyr Ala Lys Arg Leu Ser Asp Glu Arg Asn Leu Leu Gln Asp Pro Asn
 705 710 715 720
 Phe Thr Ser Ile Asn Lys Gln Pro Asp Phe Ile Ser Thr Asn Glu Gln
 725 730 735
 Ser Asn Phe Thr Ser Ile His Glu Gln Ser Glu His Gly Trp Trp Gly
 740 745 750
 Ser Glu Asn Ile Thr Ile Gln Glu Gly Asn Asp Val Phe Lys Glu Asn
 755 760 765
 Tyr Val Thr Leu Pro Gly Thr Phe Asn Glu Cys Tyr Pro Thr Tyr Leu
 770 775 780
 Tyr Gln Lys Ile Gly Glu Ser Glu Leu Lys Ala Tyr Thr Arg Tyr Gln
 785 790 795 800
 Leu Arg Gly Tyr Ile Glu Asp Ser Gln Asp Leu Glu Ile Tyr Leu Ile
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 Arg Tyr Asn Ala Lys His Glu Thr Leu Asp Val Pro Gly Thr Glu Ser
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 Val Trp Pro Leu Ser Val Glu Ser Pro Ile Gly Arg Cys Gly Glu Pro
 835 840 845
 Asn Arg Cys Ala Pro His Phe Glu Trp Asn Pro Asp Leu Asp Cys Ser
 850 855 860

Cys Arg Asp Gly Glu Lys Cys Ala His His Ser His His Phe Ser Leu
 865 870 875 880
 Asp Ile Asp Ile Gly Cys Thr Asp Leu His Glu Asn Leu Gly Val Trp
 885 890 895
 Val Val Phe Lys Ile Lys Thr Gln Glu Gly His Ala Arg Leu Gly Asn
 900 905 910
 Leu Glu Phe Ile Glu Glu Lys Pro Leu Leu Gly Glu Ala Leu Ser Arg
 915 920 925
 Val Lys Arg Ala Glu Lys Lys Trp Arg Asp Lys Arg Glu Lys Leu Gln
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 Leu Glu Thr Lys Arg Val Tyr Thr Glu Ala Lys Glu Ala Val Asp Ala
 945 950 955 960
 Leu Phe Val Asp Ser Gln Tyr Asn Arg Leu Gln Ala Asp Thr Asn Ile
 965 970 975
 Gly Met Ile His Ala Ala Asp Lys Leu Val His Arg Ile Arg Glu Ala
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 Tyr Leu Ser Glu Leu Ser Val Ile Pro Gly Val Asn Ala Glu Ile Phe
 995 1000 1005
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 Arg Asn Val Val Lys Asn Gly Asp Phe Asn Asn Gly Leu Ala Cys Trp
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 1060 1065 1070
 Cys Pro Gly Arg Gly Tyr Ile Leu Arg Val Thr Ala Tyr Lys Glu Gly
 1075 1080 1085
 Tyr Gly Glu Gly Cys Val Thr Ile His Glu Ile Glu Asn Asn Thr Asp
 1090 1095 1100
 Glu Leu Lys Phe Lys Asn Cys Glu Glu Glu Val Tyr Pro Thr Asp
 1105 1110 1115 1120
 Thr Gly Thr Cys Asn Asp Tyr Thr Ala His Gln Gly Thr Ala Val Cys
 1125 1130 1135
 Asn Ser Arg Asn Ala Gly Tyr Glu Asp Ala Tyr Glu Val Asp Thr Thr
 1140 1145 1150
 Ala Ser Val Asn Tyr Lys Pro Thr Tyr Glu Glu Glu Thr Tyr Thr Asp
 1155 1160 1165

Val Arg Arg Asp Asn His Cys Glu Tyr Asp Arg Gly Tyr Val Asn Tyr
 1170 1175 1180
 Pro Pro Leu Pro Ala Gly Tyr Met Thr Lys Glu Leu Glu Tyr Phe Pro
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 Glu Thr Asp Lys Val Trp Ile Glu Ile Gly Glu Thr Glu Gly Lys Phe
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 aag cct gag gaa gta ttt ttg gat ggg gag agg ata tta cct gat atc 96
 Lys Pro Glu Val Phe Leu Asp Gly Glu Arg Ile Leu Pro Asp Ile
 20 25 30
 gat cca ctc gaa gtt tct ttg tcg ctt ttg caa ttt ctt ttg aat aac 144
 Asp Pro Leu Glu Val Ser Leu Ser Leu Leu Gln Phe Leu Leu Asn Asn
 35 40 45
 ttt gtt ccg ggg ggg ttt att tca gga tta att gac aaa ata tgg 192
 Phe Val Pro Gly Gly Phe Ile Ser Gly Leu Ile Asp Lys Ile Trp
 50 55 60
 ggg gct ttg aga cca tct gaa tgg gaa tta ttt ctt gca cag att gaa 240
 Gly Ala Leu Arg Pro Ser Glu Trp Glu Leu Phe Leu Ala Gln Ile Glu
 65 70 75 80
 cag ttg att gat cga aga ata gaa gca aca gta aga gca aaa gca atc 288
 Gln Leu Ile Asp Arg Arg Ile Glu Ala Thr Val Arg Ala Lys Ala Ile
 85 90 95
 gct gaa tta gaa ggt tta ggg aga agt tat caa cta tat gga gag gca 336
 Ala Glu Leu Glu Gly Leu Gly Arg Ser Tyr Gln Leu Tyr Gly Glu Ala
 100 105 110
 ttt aaa gag tgg gaa aaa act cca gat aac aca gcg gct cgg tct aga 384
 Phe Lys Glu Trp Glu Lys Thr Pro Asp Asn Thr Ala Ala Arg Ser Arg
 115 120 125
 gta act gag aga ttt cgt ata att gat gct caa att gaa gca aat atc 432

Val Thr Glu Arg Phe Arg Ile Ile Asp Ala Gln Ile Glu Ala Asn Ile			
130	135	140	
cct tcg ttt cgg gtt tcc gga ttt gaa gtg cca ctt cta tcg gtt tat			480
Pro Ser Phe Arg Val Ser Gly Phe Glu Val Pro Leu Leu Ser Val Tyr			
145	150	155	160
acc caa gca gct aat ttg cat ctc gct cta tta aga gat tct gtt att			528
Thr Gln Ala Ala Asn Leu His Leu Ala Leu Leu Arg Asp Ser Val Ile			
165	170	175	
ttt gga gag aga tgg gga ttg tcg act aca aat gtc aat gat atc tat			576
Phe Gly Glu Arg Trp Gly Leu Ser Thr Thr Asn Val Asn Asp Ile Tyr			
180	185	190	
aat aga caa gtt aag aga att cat gaa tat agc gat cat tgt gta gat			624
Asn Arg Gln Val Lys Arg Ile His Glu Tyr Ser Asp His Cys Val Asp			
195	200	205	
acg tat aaa aca gaa tta gaa cgt cta gag ttt aga tct ata gcg caa			672
Thr Tyr Lys Thr Glu Leu Glu Arg Leu Glu Phe Arg Ser Ile Ala Gln			
210	215	220	
tgg aga ata tat aat cag ttt aga agg gaa ttg aca cta acg gta tta			720
Trp Arg Ile Tyr Asn Gln Phe Arg Arg Glu Leu Thr Leu Thr Val Leu			
225	230	235	240
gat att gtc gct ctt ttc ccg aac tat gat ggt aga ctg tat ccg att			768
Asp Ile Val Ala Leu Phe Pro Asn Tyr Asp Gly Arg Leu Tyr Pro Ile			
245	250	255	
cga aca att tct caa ttg aca aga gaa att tat aca tcc cca gta agc			816
Arg Thr Ile Ser Gln Leu Thr Arg Glu Ile Tyr Thr Ser Pro Val Ser			
260	265	270	
gaa ttt tat tat ggt ccc att tat aat cat aat atg att ggt acc ttt			864
Glu Phe Tyr Tyr Gly Pro Ile Tyr Asn His Asn Met Ile Gly Thr Phe			
275	280	285	
att gaa cgg cag cta agg cga cca cat ctt atg gac ttc ttt aac tcc			912
Ile Glu Arg Gln Leu Arg Arg Pro His Leu Met Asp Phe Phe Asn Ser			
290	295	300	
atg acc atg tat aca tca gat aat aga cgg gaa tat tat tgg tca gga			960
Met Thr Met Tyr Thr Ser Asp Asn Arg Arg Glu Tyr Tyr Trp Ser Gly			
305	310	315	320
ctt gaa atg acg gct act ctt act tca gga aat caa gtg tca ttc cct			1008
Ieu Glu Met Thr Ala Thr Leu Thr Ser Gly Asn Gln Val Ser Phe Pro			
325	330	335	
tta gcc ggg act aga ggg aat tca gct cca cca gta tct gtt aga aag			1056
Leu Ala Gly Thr Arg Gly Asn Ser Ala Pro Pro Val Ser Val Arg Lys			
340	345	350	
act ggt gag gga att tat aga ata tta tcg gaa cca ttt tat tca gca			1104
Thr Gly Glu Gly Ile Tyr Arg Ile Leu Ser Glu Pro Phe Tyr Ser Ala			

355	360	365	
cct ttt cta ggc acc agt gtg cta gga agt cgc ggg gaa gaa ttt gct Pro Phe Leu Gly Thr Ser Val Leu Gly Ser Arg Gly Glu Glu Phe Ala			1152
370	375	380	
ttt gca tct aat act act aca agt ctg cca tct aca ata tat aga aat Phe Ala Ser Asn Thr Thr Ser Leu Pro Ser Thr Ile Tyr Arg Asn			1200
385	390	395	400
cgt gga aca gta gat tca tta gtc agc ata ccg cca caa gat tat agc Arg Gly Thr Val Asp Ser Leu Val Ser Ile Pro Pro Gln Asp Tyr Ser			1248
405	410	415	
gta cca ccg cac agg ggg tat agt cat tta tta agt cac gtt acg atg Val Pro Pro His Arg Gly Tyr Ser His Leu Leu Ser His Val Thr Met			1296
420	425	430	
cac aat agt tct cct ata ttc cac tgg acg cat cgt agt gcg aca cct His Asn Ser Ser Pro Ile Phe His Trp Thr His Arg Ser Ala Thr Pro			1344
435	440	445	
aga aat ata att tat cca gat agt atc act caa atc cca gta gtt aag Arg Asn Ile Ile Tyr Pro Asp Ser Ile Thr Gln Ile Pro Val Val Lys			1392
450	455	460	
gct tcg cac ctc tct ggt ggt tca gtt ata aaa gga cct gga cat aca Ala Ser His Leu Ser Gly Gly Ser Val Ile Lys Gly Pro Gly His Thr			1440
465	470	475	480
ggt gga gat tta ata agc cta cct gta aat aac ttt act cat ttc cga Gly Gly Asp Leu Ile Ser Leu Pro Val Asn Asn Phe Thr His Phe Arg			1488
485	490	495	
atc cca ttt cag gca aac act cca caa agg tat cgt att aga att tgt Ile Pro Phe Gln Ala Asn Thr Pro Gln Arg Tyr Arg Ile Arg Ile Cys			1536
500	505	510	
tat gcg gca gac tca gat ggg act ttg gat agt gga gtt ttc tta agt Tyr Ala Ala Asp Ser Asp Gly Thr Leu Asp Ser Gly Val Phe Leu Ser			1584
515	520	525	
gca gca gca ggg gat ggt ttt aat aca act tct tat agg gcc aca atg Ala Ala Ala Gly Asp Gly Phe Asn Thr Thr Ser Tyr Arg Ala Thr Met			1632
530	535	540	
agc cct gaa ggt tcc tta aca tct cgt gat ttt caa ttt tta gat tta Ser Pro Glu Gly Ser Leu Thr Ser Arg Asp Phe Gln Phe Leu Asp Leu			1680
545	550	555	560
aac aca tcg ttt acc tcc gat gta gca tct aac tta tgg tta cat ttt Asn Thr Ser Phe Thr Ser Asp Val Ala Ser Asn Leu Trp Leu His Phe			1728
565	570	575	
ata cgt tat ata cga cca ggg aat ttg tat ata gat aga gcg gaa ttt Ile Arg Tyr Ile Arg Pro Gly Asn Leu Tyr Ile Asp Arg Ala Glu Phe			1776
580	585	590	

atc cca gtg gat gca acc ttc gag gca ggt tat aat tta gaa agg gcg Ile Pro Val Asp Ala Thr Phe Glu Ala Gly Tyr Asn Leu Glu Arg Ala 595 600 605	1824
caa aag gcg gtg aat gcc ctg ttt act tct aca aac caa aaa gga tta Gln Lys Ala Val Asn Ala Leu Phe Thr Ser Thr Asn Gln Lys Gly Leu 610 615 620	1872
caa aca gat gtg acg gat tat cat att gat caa gta tcc aat cta gtt Gln Thr Asp Val Thr Asp Tyr His Ile Asp Gln Val Ser Asn Leu Val 625 630 635 640	1920
gat tgt tta tct gat gag ttt tgc tta gat gaa aag cga aaa ttg tcc Asp Cys Leu Ser Asp Glu Phe Cys Leu Asp Glu Lys Arg Lys Leu Ser 645 650 655	1968
gag aaa gtc aaa cag gcg aag cga ctc agt gat gag cgg aat tta ctt Glu Lys Val Lys Gln Ala Lys Arg Leu Ser Asp Glu Arg Asn Leu Leu 660 665 670	2016
cag gat tca aat ttc aga ggc atc aat agg gaa caa gac cgt gga tgg Gln Asp Ser Asn Phe Arg Gly Ile Asn Arg Glu Gln Asp Arg Gly Trp 675 680 685	2064
aga gga agt acg gat att act atc caa gga gga aac gat gtt ttc aaa Arg Gly Ser Thr Asp Ile Thr Ile Gln Gly Gly Asn Asp Val Phe Lys 690 695 700	2112
gag aat tac gtt aca cta cca ggt acc ttt gat gcg tgt tat cca aca Glu Asn Tyr Val Thr Leu Pro Gly Thr Phe Asp Ala Cys Tyr Pro Thr 705 710 715 720	2160
tat ttg tat caa aaa gtc gat gaa tca aaa tta aaa gcc tat acc cgt Tyr Leu Tyr Gln Lys Val Asp Glu Ser Lys Leu Lys Ala Tyr Thr Arg 725 730 735	2208
tat caa tta aga ggc tat atc gaa gat agt caa gat tta gaa gtc tat Tyr Gln Leu Arg Gly Tyr Ile Glu Asp Ser Gln Asp Leu Glu Val Tyr 740 745 750	2256
ttg atc cgt tat aat gca aaa tat gaa acg tta aat gtg cca ggt atg Leu Ile Arg Tyr Asn Ala Lys Tyr Glu Thr Leu Asn Val Pro Gly Met 755 760 765	2304
ggt tct tta tgg cca ctt tca gtc gaa agt cca att gga aag tgt gga Gly Ser Leu Trp Pro Leu Ser Val Glu Ser Pro Ile Gly Lys Cys Gly 770 775 780	2352
gaa ccg aat cga tgt gtg cca caa ctt gaa tgg aat ccc gat ttc gat Glu Pro Asn Arg Cys Val Pro Gln Leu Glu Trp Asn Pro Asp Phe Asp 785 790 795 800	2400
tgt tcc tgc aga gac gga gaa aaa tgt gcg cat cat tcg cat cat ttc Cys Ser Cys Arg Asp Gly Glu Lys Cys Ala His His Ser His His Phe 805 810 815	2448

tcc ttg gac att gat gtt gga tgt aca gac ttg aat gag aac cta ggt Ser Leu Asp Ile Asp Val Gly Cys Thr Asp Leu Asn Glu Asn Leu Gly 820 825 830	2496
ata tgg gtg ata ttc aag att aag aca cag gat ggt cat gca aga cta Ile Trp Val Ile Phe Lys Ile Lys Thr Gln Asp Gly His Ala Arg Leu 835 840 845	2544
gga aat cta gaa ttt ctc gaa gag aaa ccg tta tta gga gaa gcg tta Gly Asn Leu Glu Phe Leu Glu Glu Lys Pro Leu Leu Gly Glu Ala Leu 850 855 860	2592
gcc cgt gtg aag aga gcg gag aaa aaa tgg aga gac aaa cgt gaa ata Ala Arg Val Lys Arg Ala Glu Lys Trp Arg Asp Lys Arg Glu Ile 865 870 875 880	2640
ttg caa tca gaa act aat att gtt tat aaa gaa gca aaa gaa gct gta Leu Gln Ser Glu Thr Asn Ile Val Tyr Lys Glu Ala Lys Glu Ala Val 885 890 895	2688
gat ggt tta ttc gta gat tcc caa tat gag aga tta caa tct gat acg Asp Gly Leu Phe Val Asp Ser Gln Tyr Glu Arg Leu Gln Ser Asp Thr 900 905 910	2736
aat atc gcc atg att cat gcg gca gat aaa cgc gtt cac cga atc cga Asn Ile Ala Met Ile His Ala Ala Asp Lys Arg Val His Arg Ile Arg 915 920 925	2784
gag gct tat ctg cca gag ctc tcc gtg att cca ggt gtc aat gca gcg Glu Ala Tyr Leu Pro Glu Leu Ser Val Ile Pro Gly Val Asn Ala Ala 930 935 940	2832
att ttc gaa gaa tta gaa gga cgt att ttc aca gcc tac tct cta tat Ile Phe Glu Glu Leu Glu Gly Arg Ile Phe Thr Ala Tyr Ser Leu Tyr 945 950 955 960	2880
gat gcg aga aat gtc att aaa aac ggt gat ttc aat aat ggc tta tca Asp Ala Arg Asn Val Ile Lys Asn Gly Asp Phe Asn Asn Gly Leu Ser 965 970 975	2928
tgc tgg aat gtg aaa ggg cat gta gat ata aaa cag aat ggt cat cgt Cys Trp Asn Val Lys Gly His Val Asp Ile Lys Gln Asn Gly His Arg 980 985 990	2976
tct gtt ctt gtt atc cca gaa tgg gaa gca caa gtt tca caa gaa gtt Ser Val Leu Val Ile Pro Glu Trp Glu Ala Gln Val Ser Gln Glu Val 995 1000 1005	3024
cgt gta tgt cca ggt cgt ggc tac atc ctt cgt gtt aca gcg aac aaa Arg Val Cys Pro Gly Arg Gly Tyr Ile Leu Arg Val Thr Ala Asn Lys 1010 1015 1020	3072
gaa gga tat gga gaa ggc tgc gta acg att cat gag att gag aat cat Glu Gly Tyr Gly Glu Gly Cys Val Thr Ile His Glu Ile Glu Asn His 1025 1030 1035 1040	3120
act gaa aaa ctg aag ttt aga aac tgc gaa gaa gag gaa gta tat cca	3168

Thr Glu Lys Leu Lys Phe Arg Asn Cys Glu Glu Glu Val Tyr Pro	1055			
1045	1050			
aac aat aca gga acg tgt aat gat tat act gca cac caa caa ggt aca	3216			
Asn Asn Thr Gly Thr Cys Asn Asp Tyr Thr Ala His Gln Gln Gly Thr	1060	1065	1070	
gca gga tgc gca gat gca tgt aat acc cgt aat gtc gga tat gaa gat	3264			
Ala Gly Cys Ala Asp Ala Cys Asn Thr Arg Asn Val Gly Tyr Glu Asp	1075	1080	1085	
gca tat gaa atg aat act aca aca tct gtt aat tac aaa ccg act tac	3312			
Ala Tyr Glu Met Asn Thr Thr Ser Val Asn Tyr Lys Pro Thr Tyr	1090	1095	1100	
gag gaa gaa gta tat aca gat gga cga aga gat aat cct tgt gaa atg	3360			
Glu Glu Glu Val Tyr Thr Asp Gly Arg Arg Asp Asn Pro Cys Glu Met	1105	1110	1115	1120
gaa aga ggt tac aca cca tta cca gtt ggt tat gta aca aaa gaa tta	3408			
Glu Arg Gly Tyr Thr Pro Leu Pro Val Gly Tyr Val Thr Lys Glu Leu	1125	1130	1135	
gaa tac ttc cct gaa aca aat aca gta tgg att gaa att gga gaa acg	3456			
Glu Tyr Phe Pro Glu Thr Asn Thr Val Trp Ile Glu Ile Gly Glu Thr	1140	1145	1150	
gaa ggg aag ttt att gta gac agt gtc gaa tta ctc ctt atg gaa gaa	3504			
Glu Gly Lys Phe Ile Val Asp Ser Val Glu Leu Leu Met Glu Glu	1155	1160	1165	
tag	3507			

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Met Glu Ile Asn Asn Gln Asn Gln Cys Ile Pro Tyr Asn Cys Leu Ser	15	
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Lys Pro Glu Glu Val Phe Leu Asp Gly Glu Arg Ile Leu Pro Asp Ile	30	
20	25	
Asp Pro Leu Glu Val Ser Leu Ser Leu Gln Phe Leu Leu Asn Asn	45	
35	40	
Phe Val Pro Gly Gly Phe Ile Ser Gly Leu Ile Asp Lys Ile Trp	60	
50	55	
Gly Ala Leu Arg Pro Ser Glu Trp Glu Leu Phe Leu Ala Gln Ile Glu	80	
65	70	75
Gln Leu Ile Asp Arg Arg Ile Glu Ala Thr Val Arg Ala Lys Ala Ile		

85	90	95
Ala Glu Leu Glu Gly Leu Gly Arg Ser Tyr Gln Leu Tyr Gly Glu Ala		
100	105	110
Phe Lys Glu Trp Glu Lys Thr Pro Asp Asn Thr Ala Ala Arg Ser Arg		
115	120	125
Val Thr Glu Arg Phe Arg Ile Ile Asp Ala Gln Ile Glu Ala Asn Ile		
130	135	140
Pro Ser Phe Arg Val Ser Gly Phe Glu Val Pro Leu Leu Ser Val Tyr		
145	150	155
Thr Gln Ala Ala Asn Leu His Leu Ala Leu Leu Arg Asp Ser Val Ile		
165	170	175
Phe Gly Glu Arg Trp Gly Leu Ser Thr Thr Asn Val Asn Asp Ile Tyr		
180	185	190
Asn Arg Gln Val Lys Arg Ile His Glu Tyr Ser Asp His Cys Val Asp		
195	200	205
Thr Tyr Lys Thr Glu Leu Glu Arg Leu Glu Phe Arg Ser Ile Ala Gln		
210	215	220
Trp Arg Ile Tyr Asn Gln Phe Arg Arg Glu Leu Thr Leu Thr Val Leu		
225	230	235
Asp Ile Val Ala Leu Phe Pro Asn Tyr Asp Gly Arg Leu Tyr Pro Ile		
245	250	255
Arg Thr Ile Ser Gln Leu Thr Arg Glu Ile Tyr Thr Ser Pro Val Ser		
260	265	270
Glu Phe Tyr Tyr Gly Pro Ile Tyr Asn His Asn Met Ile Gly Thr Phe		
275	280	285
Ile Glu Arg Gln Leu Arg Arg Pro His Leu Met Asp Phe Phe Asn Ser		
290	295	300
Met Thr Met Tyr Thr Ser Asp Asn Arg Arg Glu Tyr Tyr Trp Ser Gly		
305	310	315
Leu Glu Met Thr Ala Thr Leu Thr Ser Gly Asn Gln Val Ser Phe Pro		
325	330	335
Leu Ala Gly Thr Arg Gly Asn Ser Ala Pro Pro Val Ser Val Arg Lys		
340	345	350
Thr Gly Glu Gly Ile Tyr Arg Ile Leu Ser Glu Pro Phe Tyr Ser Ala		
355	360	365
Pro Phe Leu Gly Thr Ser Val Leu Gly Ser Arg Gly Glu Glu Phe Ala		
370	375	380
Phe Ala Ser Asn Thr Thr Ser Leu Pro Ser Thr Ile Tyr Arg Asn		

385	390	395	400												
Arg	Gly	Thr	Val	Asp	Ser	Leu	Val	Ser	Ile	Pro	Pro	Gln	Asp	Tyr	Ser
405															415
Val	Pro	Pro	His	Arg	Gly	Tyr	Ser	His	Leu	Leu	Ser	His	Val	Thr	Met
420															430
His	Asn	Ser	Ser	Pro	Ile	Phe	His	Trp	Thr	His	Arg	Ser	Ala	Thr	Pro
435															445
Arg	Asn	Ile	Ile	Tyr	Pro	Asp	Ser	Ile	Thr	Gln	Ile	Pro	Val	Val	Lys
450															460
Ala	Ser	His	Leu	Ser	Gly	Gly	Ser	Val	Ile	Lys	Gly	Pro	Gly	His	Thr
465															480
Gly	Gly	Asp	Leu	Ile	Ser	Leu	Pro	Val	Asn	Asn	Phe	Thr	His	Phe	Arg
485															495
Ile	Pro	Phe	Gln	Ala	Asn	Thr	Pro	Gln	Arg	Tyr	Arg	Ile	Arg	Ile	Cys
500															510
Tyr	Ala	Ala	Asp	Ser	Asp	Gly	Thr	Leu	Asp	Ser	Gly	Val	Phe	Leu	Ser
515															525
Ala	Ala	Ala	Gly	Asp	Gly	Phe	Asn	Thr	Thr	Ser	Tyr	Arg	Ala	Thr	Met
530															540
Ser	Pro	Glu	Gly	Ser	Leu	Thr	Ser	Arg	Asp	Phe	Gln	Phe	Leu	Asp	Leu
545															560
Asn	Thr	Ser	Phe	Thr	Ser	Asp	Val	Ala	Ser	Asn	Leu	Trp	Leu	His	Phe
565															575
Ile	Arg	Tyr	Ile	Arg	Pro	Gly	Asn	Leu	Tyr	Ile	Asp	Arg	Ala	Glu	Phe
580															590
Ile	Pro	Val	Asp	Ala	Thr	Phe	Glu	Ala	Gly	Tyr	Asn	Leu	Glu	Arg	Ala
595															605
Gln	Lys	Ala	Val	Asn	Ala	Leu	Phe	Thr	Ser	Thr	Asn	Gln	Lys	Gly	Leu
610															620
Gln	Thr	Asp	Val	Thr	Asp	Tyr	His	Ile	Asp	Gln	Val	Ser	Asn	Leu	Val
625															640
Asp	Cys	Leu	Ser	Asp	Glu	Phe	Cys	Leu	Asp	Glu	Lys	Arg	Lys	Leu	Ser
645															655
Glu	Lys	Val	Lys	Gln	Ala	Lys	Arg	Leu	Ser	Asp	Glu	Arg	Asn	Leu	Leu
660															670
Gln	Asp	Ser	Asn	Phe	Arg	Gly	Ile	Asn	Arg	Glu	Gln	Asp	Arg	Gly	Trp
675															685
Arg	Gly	Ser	Thr	Asp	Ile	Thr	Ile	Gln	Gly	Gly	Asn	Asp	Val	Phe	Lys

690	695	700
Glu Asn Tyr Val Thr Leu Pro Gly Thr Phe Asp Ala Cys Tyr Pro Thr		
705	710	715
Tyr Leu Tyr Gln Lys Val Asp Glu Ser Lys Leu Lys Ala Tyr Thr Arg		
725	730	735
Tyr Gln Leu Arg Gly Tyr Ile Glu Asp Ser Gln Asp Leu Glu Val Tyr		
740	745	750
Leu Ile Arg Tyr Asn Ala Lys Tyr Glu Thr Leu Asn Val Pro Gly Met		
755	760	765
Gly Ser Leu Trp Pro Leu Ser Val Glu Ser Pro Ile Gly Lys Cys Gly		
770	775	780
Glu Pro Asn Arg Cys Val Pro Gln Leu Glu Trp Asn Pro Asp Phe Asp		
785	790	795
Cys Ser Cys Arg Asp Gly Glu Lys Cys Ala His His Ser His His Phe		
805	810	815
Ser Leu Asp Ile Asp Val Gly Cys Thr Asp Leu Asn Glu Asn Leu Gly		
820	825	830
Ile Trp Val Ile Phe Lys Ile Lys Thr Gln Asp Gly His Ala Arg Leu		
835	840	845
Gly Asn Leu Glu Phe Leu Glu Glu Lys Pro Leu Leu Gly Glu Ala Leu		
850	855	860
Ala Arg Val Lys Arg Ala Glu Lys Lys Trp Arg Asp Lys Arg Glu Ile		
865	870	875
Leu Gln Ser Glu Thr Asn Ile Val Tyr Lys Glu Ala Lys Glu Ala Val		
885	890	895
Asp Gly Leu Phe Val Asp Ser Gln Tyr Glu Arg Leu Gln Ser Asp Thr		
900	905	910
Asn Ile Ala Met Ile His Ala Ala Asp Lys Arg Val His Arg Ile Arg		
915	920	925
Glu Ala Tyr Leu Pro Glu Leu Ser Val Ile Pro Gly Val Asn Ala Ala		
930	935	940
Ile Phe Glu Glu Leu Glu Gly Arg Ile Phe Thr Ala Tyr Ser Leu Tyr		
945	950	955
Asp Ala Arg Asn Val Ile Lys Asn Gly Asp Phe Asn Asn Gly Leu Ser		
965	970	975
Cys Trp Asn Val Lys Gly His Val Asp Ile Lys Gln Asn Gly His Arg		
980	985	990
Ser Val Leu Val Ile Pro Glu Trp Glu Ala Gln Val Ser Gln Glu Val		

995	1000	1005
Arg Val Cys Pro Gly Arg Gly Tyr Ile Leu Arg Val Thr Ala Asn Lys		
1010	1015	1020
Glu Gly Tyr Gly Glu Gly Cys Val Thr Ile His Glu Ile Glu Asn His		
1025	1030	1035
1040		
Thr Glu Lys Leu Lys Phe Arg Asn Cys Glu Glu Glu Val Tyr Pro		
1045	1050	1055
Asn Asn Thr Gly Thr Cys Asn Asp Tyr Thr Ala His Gln Gln Gly Thr		
1060	1065	1070
Ala Gly Cys Ala Asp Ala Cys Asn Thr Arg Asn Val Gly Tyr Glu Asp		
1075	1080	1085
Ala Tyr Glu Met Asn Thr Thr Ser Val Asn Tyr Lys Pro Thr Tyr		
1090	1095	1100
Glu Glu Glu Val Tyr Thr Asp Gly Arg Arg Asp Asn Pro Cys Glu Met		
1105	1110	1115
1120		
Glu Arg Gly Tyr Thr Pro Leu Pro Val Gly Tyr Val Thr Lys Glu Leu		
1125	1130	1135
Glu Tyr Phe Pro Glu Thr Asn Thr Val Trp Ile Glu Ile Gly Glu Thr		
1140	1145	1150
Glu Gly Lys Phe Ile Val Asp Ser Val Glu Leu Leu Met Glu Glu		
1155	1160	1165

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1	5	10	15				
tgt ggt tgt gcg tca gat gat gtt gtt caa tac cct ttg gca aga gat							
Cys Gly Cys Ala Ser Asp Asp Val Val Gln Tyr Pro Leu Ala Arg Asp							
20	25	30					
ccg aat gct gta ttc caa aat atg cat tat aaa gat tat ttg caa acg							
Pro Asn Ala Val Phe Gln Asn Met His Tyr Lys Asp Tyr Leu Gln Thr							
35	40	45					
tat gat gga gac tat aca ggt tct ttt ata aat cct aac tta tct att							
Tyr Asp Gly Asp Tyr Thr Gly Ser Phe Ile Asn Pro Asn Leu Ser Ile							
192							

50	55	60	
aat cct aga gat gta ctg caa act gga att aat att gtg gga aga tta			240
Asn Pro Arg Asp Val Leu Gln Thr Gly Ile Asn Ile Val Gly Arg Leu			
65	70	75	80
cta gga ttt cta ggt gtt cca ttt gct ggt cag tta gtt act ttc tat			288
Leu Gly Phe Leu Gly Val Pro Phe Ala Gly Gln Leu Val Thr Phe Tyr			
85	90	95	
act ttt ctt tta aat caa cta tgg cca aca aat gat aat gca gta tgg			336
Thr Phe Leu Leu Asn Gln Leu Trp Pro Thr Asn Asp Asn Ala Val Trp			
100	105	110	
gaa gct ttt atg gca caa ata gaa gag ctt att aat caa aga ata tcc			384
Glu Ala Phe Met Ala Gln Ile Glu Glu Leu Ile Asn Gln Arg Ile Ser			
115	120	125	
gaa gca gta gta ggg aca gca gcg gat cat tta acg gga tta cac gat			432
Glu Ala Val Val Gly Thr Ala Ala Asp His Leu Thr Gly Leu His Asp			
130	135	140	
aat tat gag tta tat gta gag gca ttg gaa gaa tgg ctg gaa aga ccg			480
Asn Tyr Glu Leu Tyr Val Glu Ala Leu Glu Trp Leu Glu Arg Pro			
145	150	155	160
aat gct gct aga act aat cta ctt ttt aat aga ttt acc acc cta gat			528
Asn Ala Ala Arg Thr Asn Leu Leu Phe Asn Arg Phe Thr Thr Leu Asp			
165	170	175	
agt ctt ttt aca caa ttt atg cca agc ttt ggt act gga cct gga agt			576
Ser Leu Phe Thr Gln Phe Met Pro Ser Phe Gly Thr Gly Pro Gly Ser			
180	185	190	
caa aac tac gca gtt cca tta ctt aca gta tac gca caa gca gcg aac			624
Gln Asn Tyr Ala Val Pro Leu Leu Thr Val Tyr Ala Gln Ala Ala Asn			
195	200	205	
ctt cat ttg tta tta aag gat gct gaa ata tat gga gca aga tgg			672
Leu His Leu Leu Leu Lys Asp Ala Glu Ile Tyr Gly Ala Arg Trp			
210	215	220	
gga ctg aac caa aat cag att aac tca ttc cat acg cgc caa caa gag			720
Gly Leu Asn Gln Asn Gln Ile Asn Ser Phe His Thr Arg Gln Gln Glu			
225	230	235	240
cgt act caa tat tat aca aat cat tgc gta acg acg tat aat acc ggt			768
Arg Thr Gln Tyr Tyr Thr Asn His Cys Val Thr Thr Tyr Asn Thr Gly			
245	250	255	
tta gat aga tta aga ggc aca aat act gaa agt tgg tta aat tat cat			816
Leu Asp Arg Leu Arg Gly Thr Asn Thr Glu Ser Trp Leu Asn Tyr His			
260	265	270	
cga ttc cgt aga gag atg aca tta atg gca atg gat tta gtg gcc tta			864
Arg Phe Arg Arg Glu Met Thr Leu Met Ala Met Asp Leu Val Ala Leu			
275	280	285	

ttc cca tac tat aat gtg cga caa tat cca aat ggg gca aat cca cag Phe Pro Tyr Tyr Asn Val Arg Gln Tyr Pro Asn Gly Ala Asn Pro Gln 290 295 300	912
ctt aca cgt gaa ata tat acg gat cca atc gta tat aat cca cca gct Leu Thr Arg Glu Ile Tyr Thr Asp Pro Ile Val Tyr Asn Pro Pro Ala 305 310 315 320	960
aat cag gga atc tgc cga cgt tgg ggg aat aat cct tat aat aca ttt Asn Gln Gly Ile Cys Arg Arg Trp Gly Asn Asn Pro Tyr Asn Thr Phe 325 330 335	1008
tct gaa ctt gaa aat gct ttt att cgc ccg cca cat ctt ttt gat agg Ser Glu Leu Glu Asn Ala Phe Ile Arg Pro Pro His Leu Phe Asp Arg 340 345 350	1056
ttg aat aga tta act att tct aga aac cga tat aca gct cca aca act Leu Asn Arg Leu Thr Ile Ser Arg Asn Arg Tyr Thr Ala Pro Thr Thr 355 360 365	1104
aat agc tac cta gac tat tgg tca ggt cat act tta caa agc cag tat Asn Ser Tyr Leu Asp Tyr Trp Ser Gly His Thr Leu Gln Ser Gln Tyr 370 375 380	1152
gca aat aac ccg acg aca tat gaa act agt tac ggt cag att acc tct Ala Asn Asn Pro Thr Thr Tyr Glu Thr Ser Tyr Gly Gln Ile Thr Ser 385 390 395 400	1200
aac aca cgt tta ttc aat acg act aat gga gcc aat gca ata gat tca Asn Thr Arg Leu Phe Asn Thr Asn Gly Ala Asn Ala Ile Asp Ser 405 410 415	1248
agg gca aga aat ttt ggt aac tta tac gct aat ttg tat ggt gtt agc Arg Ala Arg Asn Phe Gly Asn Leu Tyr Ala Asn Leu Tyr Gly Val Ser 420 425 430	1296
tat ttg aat att ttc cca aca ggt gtg atg agt gaa atc acc tca gcc Tyr Leu Asn Ile Phe Pro Thr Gly Val Met Ser Glu Ile Thr Ser Ala 435 440 445	1344
cct aat acg tgt tgg caa gac ctt act aca act gag gaa cta cca cta Pro Asn Thr Cys Trp Gln Asp Leu Thr Thr Glu Glu Leu Pro Leu 450 455 460	1392
gtg aat aat aat ttt aat ctt tta tct cat gtt act ttc tta cgc ttc Val Asn Asn Asn Phe Asn Leu Leu Ser His Val Thr Phe Leu Arg Phe 465 470 475 480	1440
aat act act cag ggt ggc ccc ctt gca act gta ggg ttt gta ccc aca Asn Thr Gln Gly Gly Pro Leu Ala Thr Val Gly Phe Val Pro Thr 485 490 495	1488
tat gtg tgg aca cgt caa gat gta gat ttt aat aat ata att act ccc Tyr Val Trp Thr Arg Gln Asp Val Asp Phe Asn Asn Ile Ile Thr Pro 500 505 510	1536

aat aga att actcaa atcca gtc gta aag gca tat gag cta agt agt Asn Arg Ile Thr Gln Ile Pro Val Val Lys Ala Tyr Glu Leu Ser Ser 515 520 525	1584
ggt gct act gtc gtg aaa ggt cca gga ttc aca gga gga gat gta atc Gly Ala Thr Val Val Lys Gly Pro Gly Phe Thr Gly Gly Asp Val Ile 530 535 540	1632
cga aga aca aat act ggt gga ttc gga gca ata agg gtc gtc act Arg Arg Thr Asn Thr Gly Gly Phe Gly Ala Ile Arg Val Ser Val Thr 545 550 555 560	1680
gga ccg cta aca caa cga tat cgc ata agg ttc cgt tat gct tcg aca Gly Pro Leu Thr Gln Arg Tyr Arg Ile Arg Phe Arg Tyr Ala Ser Thr 565 570 575	1728
ata gat ttt gat ttc ttt gta aca cgt gga gga act act ata aat aat Ile Asp Phe Asp Phe Val Thr Arg Gly Gly Thr Thr Ile Asn Asn 580 585 590	1776
ttt aga ttt aca cgt aca atg aac agg gga cag gaa tca aga tat gaa Phe Arg Phe Thr Arg Thr Met Asn Arg Gly Gln Glu Ser Arg Tyr Glu 595 600 605	1824
tcc tat cgt act gta gag ttt aca act cct ttt aac ttt aca caa agt Ser Tyr Arg Thr Val Glu Phe Thr Thr Pro Phe Asn Phe Thr Gln Ser 610 615 620	1872
caa gat ata att cga aca tct atc cag gga ctt agt gga aat ggg gaa Gln Asp Ile Ile Arg Thr Ser Ile Gln Gly Leu Ser Gly Asn Gly Glu 625 630 635 640	1920
gta tac ctt gat aga att gaa atc atc cct gta aat cca aca cga gaa Val Tyr Leu Asp Arg Ile Glu Ile Ile Pro Val Asn Pro Thr Arg Glu 645 650 655	1968
gcg gaa gag gat tta gaa gcg gcg aag aaa gcg gtc gcg agc ttg ttt Ala Glu Glu Asp Leu Glu Ala Ala Lys Lys Ala Val Ala Ser Leu Phe 660 665 670	2016
aca cgc aca agg gac gga tta caa gta aat gtc aca gat tat caa gtc Thr Arg Thr Arg Asp Gly Leu Gln Val Asn Val Thr Asp Tyr Gln Val 675 680 685	2064
gat caa gcg gca aat tta gtc tca tgc tta tca gat gaa caa tat gcg Asp Gln Ala Ala Asn Leu Val Ser Cys Leu Ser Asp Glu Gln Tyr Ala 690 695 700	2112
cat gat aaa aag atg tta ttg gaa gcg gta cgc gcg gca aaa cgc ctc His Asp Lys Lys Met Leu Leu Glu Ala Val Arg Ala Ala Lys Arg Leu 705 710 715 720	2160
agc cga gaa cgt aac tta ctt cag gat cca gat ttt aat aca atc aat Ser Arg Glu Arg Asn Leu Leu Gln Asp Pro Asp Phe Asn Thr Ile Asn 725 730 735	2208
agt aca gaa gaa aat gga tgg aaa gca agt aac ggc gtt act att agt	2256

Ser Thr Glu Glu Asn Gly Trp Lys Ala Ser Asn Gly Val Thr Ile Ser	740	745	750	
gag ggc ggt cca ttc tat aaa ggc cgt gca ctt cag cta gca agt gca	755	760	765	2304
Glu Gly Gly Pro Phe Tyr Lys Gly Arg Ala Leu Gln Leu Ala Ser Ala				
cga gaa aat tac cca aca tac atc tat caa aaa gta gat gca tcg gag	770	775	780	2352
Arg Glu Asn Tyr Pro Thr Tyr Ile Tyr Gln Lys Val Asp Ala Ser Glu				
tta aaa cct tat aca cga tat aga ctg gat ggg ttc gtg aag agt agt	785	790	795	2400
Leu Lys Pro Tyr Thr Arg Tyr Arg Leu Asp Gly Phe Val Lys Ser Ser				
caa gat tta gaa att gat ctc att cac cat cat aaa gtc cat ctt gtg	805	810	815	2448
Gln Asp Leu Glu Ile Asp Leu Ile His His His Lys Val His Leu Val				
aaa aat gta cta gat aat tta gta tct gat act tac cca gat gat tct	820	825	830	2496
Lys Asn Val Leu Asp Asn Leu Val Ser Asp Thr Tyr Pro Asp Asp Ser				
tgt agt gga atc aat cga tgt gag gaa caa cag atg gta aat gcg caa	835	840	845	2544
Cys Ser Gly Ile Asn Arg Cys Glu Glu Gln Gln Met Val Asn Ala Gln				
ctg gaa aca gaa cat cat cat ccg atg gat tgc tgt gaa gca gct caa	850	855	860	2592
Leu Glu Thr Glu His His Pro Met Asp Cys Cys Glu Ala Ala Gln				
aca cat gag ttt tct tcc tat att gat aca ggg gat tta aat tcg act	865	870	875	2640
Thr His Glu Phe Ser Ser Tyr Ile Asp Thr Gly Asp Leu Asn Ser Thr				
gta gac cag gga atc tgg gtg atc ttt aaa gtt cga aca aca gat ggt	885	890	895	2688
Val Asp Gln Gly Ile Trp Val Ile Phe Lys Val Arg Thr Thr Asp Gly				
tat gcg acg cta gga aat ctt gaa ttg gta gag gtc gga ccg tta ttg	900	905	910	2736
Tyr Ala Thr Leu Gly Asn Leu Glu Leu Val Glu Val Gly Pro Leu Leu				
ggt gaa cct cta gaa cgt gaa caa aga gaa aat gcg aaa tgg aat gca	915	920	925	2784
Gly Glu Pro Leu Glu Arg Glu Gln Arg Glu Asn Ala Lys Trp Asn Ala				
gag tta gga aga aaa cgt gca gaa aca gat cgc gtg tat caa gat gcc	930	935	940	2832
Glu Leu Gly Arg Lys Arg Ala Glu Thr Asp Arg Val Tyr Gln Asp Ala				
aaa caa tcc atc aat cat tta ttt gtg gat tat caa gat caa caa tta	945	950	955	2880
Lys Gln Ser Ile Asn His Leu Phe Val Asp Tyr Gln Asp Gln Gln Leu				
aat cca caa ata ggg atg gca gat att atg gac gct caa aat ctt gtc				2928
Asn Pro Gln Ile Gly Met Ala Asp Ile Met Asp Ala Gln Asn Leu Val				

965	970	975	
gca tca att tca gat gta tat agc gat gca gta ctg caa atc cct gga Ala Ser Ile Ser Asp Val Tyr Ser Asp Ala Val Leu Gln Ile Pro Gly 980	985	990	2976
att aac tat gag att tac aca gag ctg tcc aat cgc tta caa caa gca Ile Asn Tyr Glu Ile Tyr Thr Glu Leu Ser Asn Arg Leu Gln Gln Ala 995	1000	1005	3024
tcg tat ctg tat acg tct cga aat gcg gtg caa aat ggg gac ttt aac Ser Tyr Leu Tyr Thr Ser Arg Asn Ala Val Gln Asn Gly Asp Phe Asn 1010	1015	1020	3072
aac ggg cta gat agc tgg aat gca aca gca ggt gca tcg gta caa cag Asn Gly Leu Asp Ser Trp Asn Ala Thr Ala Gly Ala Ser Val Gln Gln 1025	1030	1035	3120
gat ggc aat acg cat ttc tta gtt ctt tct cat tgg gat gca caa gtt Asp Gly Asn Thr His Phe Leu Val Leu Ser His Trp Asp Ala Gln Val 1045	1050	1055	3168
tcc caa caa ttt aga gtg cag ccg aat tgt aaa tat gta tta cgt gta Ser Gln Gln Phe Arg Val Gln Pro Asn Cys Lys Tyr Val Leu Arg Val 1060	1065	1070	3216
aca gca gag aaa gta ggc ggc gga gac gga tac gtg act atc cgg gat Thr Ala Glu Lys Val Gly Gly Asp Gly Tyr Val Thr Ile Arg Asp 1075	1080	1085	3264
ggt gct cat cat aca gaa acg ctt aca ttt aat gca tgt gat tat gat Gly Ala His His Thr Glu Thr Leu Thr Phe Asn Ala Cys Asp Tyr Asp 1090	1095	1100	3312
ata aat ggc acg tac gtg act gat aat acg tat cta aca aaa gaa gtg Ile Asn Gly Thr Tyr Val Thr Asp Asn Thr Tyr Leu Thr Lys Glu Val 1105	1110	1115	3360
ata ttc tat tca cat aca gaa cac atg tgg gta gag gta aat gaa aca Ile Phe Tyr Ser His Thr Glu His Met Trp Val Glu Val Asn Glu Thr 1125	1130	1135	3408
gaa ggt gca ttt cat ata gat agt att gaa ttc gtt gaa aca gaa aag Glu Gly Ala Phe His Ile Asp Ser Ile Glu Phe Val Glu Thr Glu Lys 1140	1145	1150	3456
taa			3459

<210> 6
 <211> 1152
 <212> PRT
 <213> *Bacillus thuringiensis*

<400> 6
 Met Asn Arg Asn Asn Gln Asn Asp Tyr Glu Val Ile Asp Ala Ser Asn

1	5	10	15												
Cys	Gly	Cys	Ala	Ser	Asp	Asp	Val	Val	Gln	Tyr	Pro	Leu	Ala	Arg	Asp
20							25					30			
Pro	Asn	Ala	Val	Phe	Gln	Asn	Met	His	Tyr	Lys	Asp	Tyr	Leu	Gln	Thr
35							40					45			
Tyr	Asp	Gly	Asp	Tyr	Thr	Gly	Ser	Phe	Ile	Asn	Pro	Asn	Leu	Ser	Ile
50						55					60				
Asn	Pro	Arg	Asp	Val	Leu	Gln	Thr	Gly	Ile	Asn	Ile	Val	Gly	Arg	Leu
65					70					75			80		
Leu	Gly	Phe	Leu	Gly	Val	Pro	Phe	Ala	Gly	Gln	Leu	Val	Thr	Phe	Tyr
85									90				95		
Thr	Phe	Leu	Leu	Asn	Gln	Leu	Trp	Pro	Thr	Asn	Asp	Asn	Ala	Val	Trp
100							105					110			
Glu	Ala	Phe	Met	Ala	Gln	Ile	Glu	Glu	Leu	Ile	Asn	Gln	Arg	Ile	Ser
115							120					125			
Glu	Ala	Val	Val	Gly	Thr	Ala	Ala	Asp	His	Leu	Thr	Gly	Leu	His	Asp
130							135					140			
Asn	Tyr	Glu	Leu	Tyr	Val	Glu	Ala	Leu	Glu	Glu	Trp	Leu	Glu	Arg	Pro
145					150					155			160		
Asn	Ala	Ala	Arg	Thr	Asn	Leu	Leu	Phe	Asn	Arg	Phe	Thr	Thr	Leu	Asp
165								170					175		
Ser	Leu	Phe	Thr	Gln	Phe	Met	Pro	Ser	Phe	Gly	Thr	Gly	Pro	Gly	Ser
180								185					190		
Gln	Asn	Tyr	Ala	Val	Pro	Leu	Leu	Thr	Val	Tyr	Ala	Gln	Ala	Ala	Asn
195							200					205			
Leu	His	Leu	Leu	Leu	Lys	Asp	Ala	Glu	Ile	Tyr	Gly	Ala	Arg	Trp	
210						215					220				
Gly	Leu	Asn	Gln	Asn	Gln	Ile	Asn	Ser	Phe	His	Thr	Arg	Gln	Gln	Glu
225								230		235			240		
Arg	Thr	Gln	Tyr	Tyr	Thr	Asn	His	Cys	Val	Thr	Thr	Tyr	Asn	Thr	Gly
245								250					255		
Leu	Asp	Arg	Leu	Arg	Gly	Thr	Asn	Thr	Glu	Ser	Trp	Leu	Asn	Tyr	His
260								265					270		
Arg	Phe	Arg	Arg	Glu	Met	Thr	Leu	Met	Ala	Met	Asp	Leu	Val	Ala	Leu
275							280					285			
Phe	Pro	Tyr	Tyr	Asn	Val	Arg	Gln	Tyr	Pro	Asn	Gly	Ala	Asn	Pro	Gln
290							295					300			
Leu	Thr	Arg	Glu	Ile	Tyr	Thr	Asp	Pro	Ile	Val	Tyr	Asn	Pro	Pro	Ala

305	310	315	320
Asn Gln Gly Ile Cys Arg Arg Trp Gly Asn Asn Pro Tyr Asn Thr Phe			
325		330	335
Ser Glu Leu Glu Asn Ala Phe Ile Arg Pro Pro His Leu Phe Asp Arg			
340	345		350
Leu Asn Arg Leu Thr Ile Ser Arg Asn Arg Tyr Thr Ala Pro Thr Thr			
355	360		365
Asn Ser Tyr Leu Asp Tyr Trp Ser Gly His Thr Leu Gln Ser Gln Tyr			
370	375	380	
Ala Asn Asn Pro Thr Thr Tyr Glu Thr Ser Tyr Gly Gln Ile Thr Ser			
385	390	395	400
Asn Thr Arg Leu Phe Asn Thr Thr Asn Gly Ala Asn Ala Ile Asp Ser			
405	410		415
Arg Ala Arg Asn Phe Gly Asn Leu Tyr Ala Asn Leu Tyr Gly Val Ser			
420	425		430
Tyr Leu Asn Ile Phe Pro Thr Gly Val Met Ser Glu Ile Thr Ser Ala			
435	440	445	
Pro Asn Thr Cys Trp Gln Asp Leu Thr Thr Glu Glu Leu Pro Leu			
450	455	460	
Val Asn Asn Asn Phe Asn Leu Leu Ser His Val Thr Phe Leu Arg Phe			
465	470	475	480
Asn Thr Thr Gln Gly Gly Pro Leu Ala Thr Val Gly Phe Val Pro Thr			
485	490		495
Tyr Val Trp Thr Arg Gln Asp Val Asp Phe Asn Asn Ile Ile Thr Pro			
500	505		510
Asn Arg Ile Thr Gln Ile Pro Val Val Lys Ala Tyr Glu Leu Ser Ser			
515	520	525	
Gly Ala Thr Val Val Lys Gly Pro Gly Phe Thr Gly Gly Asp Val Ile			
530	535	540	
Arg Arg Thr Asn Thr Gly Gly Phe Gly Ala Ile Arg Val Ser Val Thr			
545	550	555	560
Gly Pro Leu Thr Gln Arg Tyr Arg Ile Arg Phe Arg Tyr Ala Ser Thr			
565	570		575
Ile Asp Phe Asp Phe Phe Val Thr Arg Gly Gly Thr Thr Ile Asn Asn			
580	585	590	
Phe Arg Phe Thr Arg Thr Met Asn Arg Gly Gln Glu Ser Arg Tyr Glu			
595	600	605	
Ser Tyr Arg Thr Val Glu Phe Thr Thr Pro Phe Asn Phe Thr Gln Ser			

610	615	620
Gln Asp Ile Ile Arg Thr Ser Ile Gln Gly Leu Ser Gly Asn Gly Glu		
625	630	635
Val Tyr Leu Asp Arg Ile Glu Ile Ile Pro Val Asn Pro Thr Arg Glu		
645	650	655
Ala Glu Glu Asp Leu Glu Ala Ala Lys Lys Ala Val Ala Ser Leu Phe		
660	665	670
Thr Arg Thr Arg Asp Gly Leu Gln Val Asn Val Thr Asp Tyr Gln Val		
675	680	685
Asp Gln Ala Ala Asn Leu Val Ser Cys Leu Ser Asp Glu Gln Tyr Ala		
690	695	700
His Asp Lys Lys Met Leu Leu Glu Ala Val Arg Ala Ala Lys Arg Leu		
705	710	715
Ser Arg Glu Arg Asn Leu Leu Gln Asp Pro Asp Phe Asn Thr Ile Asn		
725	730	735
Ser Thr Glu Glu Asn Gly Trp Lys Ala Ser Asn Gly Val Thr Ile Ser		
740	745	750
Glu Gly Gly Pro Phe Tyr Lys Gly Arg Ala Leu Gln Leu Ala Ser Ala		
755	760	765
Arg Glu Asn Tyr Pro Thr Tyr Ile Tyr Gln Lys Val Asp Ala Ser Glu		
770	775	780
Leu Lys Pro Tyr Thr Arg Tyr Arg Leu Asp Gly Phe Val Lys Ser Ser		
785	790	795
Gln Asp Leu Glu Ile Asp Leu Ile His His His Lys Val His Leu Val		
805	810	815
Lys Asn Val Leu Asp Asn Leu Val Ser Asp Thr Tyr Pro Asp Asp Ser		
820	825	830
Cys Ser Gly Ile Asn Arg Cys Glu Glu Gln Gln Met Val Asn Ala Gln		
835	840	845
Leu Glu Thr Glu His His His Pro Met Asp Cys Cys Glu Ala Ala Gln		
850	855	860
Thr His Glu Phe Ser Ser Tyr Ile Asp Thr Gly Asp Leu Asn Ser Thr		
865	870	875
Val Asp Gln Gly Ile Trp Val Ile Phe Lys Val Arg Thr Thr Asp Gly		
885	890	895
Tyr Ala Thr Leu Gly Asn Leu Glu Leu Val Glu Val Gly Pro Leu Leu		
900	905	910
Gly Glu Pro Leu Glu Arg Glu Gln Arg Glu Asn Ala Lys Trp Asn Ala		

915	920	925
Glu Leu Gly Arg Lys Arg Ala Glu Thr Asp Arg Val Tyr Gln Asp Ala		
930	935	940
Lys Gln Ser Ile Asn His Leu Phe Val Asp Tyr Gln Asp Gln Gln Leu		
945	950	955
Asn Pro Gln Ile Gly Met Ala Asp Ile Met Asp Ala Gln Asn Leu Val		
965	970	975
Ala Ser Ile Ser Asp Val Tyr Ser Asp Ala Val Leu Gln Ile Pro Gly		
980	985	990
Ile Asn Tyr Glu Ile Tyr Thr Glu Leu Ser Asn Arg Leu Gln Gln Ala		
995	1000	1005
Ser Tyr Leu Tyr Thr Ser Arg Asn Ala Val Gln Asn Gly Asp Phe Asn		
1010	1015	1020
Asn Gly Leu Asp Ser Trp Asn Ala Thr Ala Gly Ala Ser Val Gln Gln		
1025	1030	1035
Asp Gly Asn Thr His Phe Leu Val Leu Ser His Trp Asp Ala Gln Val		
1045	1050	1055
Ser Gln Gln Phe Arg Val Gln Pro Asn Cys Lys Tyr Val Leu Arg Val		
1060	1065	1070
Thr Ala Glu Lys Val Gly Gly Asp Gly Tyr Val Thr Ile Arg Asp		
1075	1080	1085
Gly Ala His His Thr Glu Thr Leu Thr Phe Asn Ala Cys Asp Tyr Asp		
1090	1095	1100
Ile Asn Gly Thr Tyr Val Thr Asp Asn Thr Tyr Leu Thr Lys Glu Val		
1105	1110	1115
Ile Phe Tyr Ser His Thr Glu His Met Trp Val Glu Val Asn Glu Thr		
1125	1130	1135
Glu Gly Ala Phe His Ile Asp Ser Ile Glu Phe Val Glu Thr Glu Lys		
1140	1145	1150

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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: primer
 cry1B.fw

<400> 7
 cagtccaaac gggtataaac

<210> 8
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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer B.R

<400> 8
ctgcttcgaa ggttgcagta

20

<210> 9
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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer B.F

<400> 9
cagcgtatta agtcgatgga

20

<210> 10
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<220>
<223> Description of Artificial Sequence: primer JFW

<400> 10
gcagctaattt ctaccacatc

20

<210> 11
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<223> Description of Artificial Sequence: primer JRV

<400> 11
gtggcggtat gctgactaat

20

<210> 12
<211> 20
<212> DNA
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<220>
<223> Description of Artificial Sequence: primer 9FW

<400> 12
gyttttattc gcccggccaca 20

<210> 13
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer 9RV

<400> 13
cgacagttttt acccactact 20